

REMARKS

This is a full and timely response to the Office Action mailed April 12, 2007, submitted concurrently with a one month extension of time to extend the due date for response to August 13, 2007.

By this Amendment, claim 1 has been amended to more particularly define the present invention. Further, claims 5, 7, 8 and 14 have been canceled without prejudice or disclaimer to their underlying subject matter in view of the amendments to claim 1. Thus, claims 1-3, 9-13 and 15-22 are pending in this application.

Support for the claim amendments can be found variously throughout the specification and the original claims, see, in particular, page 8, lines 29 to page 9, line 2, of the specification.

In view of the foregoing amendments and the following remarks, Applicant believes that all pending claims are in condition for allowance. Reexamination and reconsideration in light of the above claims and the following remarks is respectfully requested.

Rejections under 35 USC § 103

Claims 1-3, 5 and 7-22 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP 54-003848 and JP 55-5938 in combination with either one of JP 63-037815, JP 56-150818, Handa et al. (U.S. Patent 5,935,684) or Laganis (U.S. Patent 4,179,420). Applicant respectfully traverses these rejections.

The Examiner has found Applicant's arguments filed January 29, 2007 to be unpersuasive since the claims do not require the presence of the tribasic acid anhydride and tetrabasic acid anhydride as the water solubility imparting component in "*any specific amount*". Thus, in response to the Examiner's concerns in this regard, Applicant has amended claim 1 to specify that "*a ratio of the water-solubility imparting component in a total of the dicarboxylic-acid component and the water-solubility imparting component is in a range of 5 to 40 mol%*" and "*wherein the water-solubility imparting component **consists of** at least one of a tribasic acid anhydride and a tetrabasic acid anhydride*".

Also, the Examiner has argued that a showing of unexpected results to rebut the obviousness rejection has not been made since none of the examples in the specification illustrate

embodiments that contain the tribasic acid anhydride and tetrabasic acid anhydride as a water solubility imparting component, or are representative of the range (i.e. 1 to 40 mol%) recited in the claims. Thus, in response to the Examiner's concerns in this regard, Applicant has submitted experimental data in the form of a Rule 1.132 Declaration showing the unexpected superior results of the present invention based on the presence of at least one of the tribasic acid anhydride and the tetrabasic acid anhydride as the water-solubility imparting component over the claimed range (i.e. 5 to 40 mol%).

Applicant submits that the experimental data firmly establishes the unexpected superior results of the present invention obtained from the claimed amount of at least one of a tribasic acid anhydride and a tetrabasic acid anhydride as the water-solubility imparting component in the claimed polyester resin (having the reactive phosphorus-containing compound as an essential component). Applicant also submits that these superior results are not taught or suggested by the cited references and thus cannot be expected from the teachings of these references.

Such experimental data confirms the superior results described in the present specification. As disclosed on page 7, lines 25-29, "When using such a polyvalent (trivalent or more) carboxylic acid component, particularly at least one of the tribasic acid anhydride and the tetrabasic acid anhydride, the carboxyl group effectively remains in the water-soluble, flame retardant polyester resin to obtain excellent hydrophilicity". Also, as described on page 8, lines 23 to 29, the specification states that there are clear advantages to obtaining a sufficient polymerization degree under a polymerization condition of eliminating an undesired crosslinking reaction in the production process, and maintaining excellent hydrophilicity. Further, the specification also states that when the amount of the water-solubility imparting component is in a range of 5 to 40 mol% with respect to the total amount of the dicarboxylic acid component and the water-solubility imparting component, a very high flame resistance and durable composition for film formation can be obtained (see, for example, page 8, line 29, to page 9, line 2, which states that "*when the polyvalent (trivalent or more) carboxylic acid component is used by itself, it is preferred that the amount used is in a range of 5 to 40 mol% with respect to the total amount of the dicarboxylic acid component and the water-solubility imparting component*"). Such advantages are not at all taught or suggested in any of the cited references. As the Examiner already knows, a showing of superior and

unexpected properties can rebut a *prima facie* case of obviousness. *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963).

Lastly, in response to the Examiner's statement in the Office Action (see bottom of page 5 to top of page 6) that there is no Example using the tri- or tetra-basic acid anhydride as the water-solubility imparting component in the original specification, Applicant wishes to note that 61.5 parts by weight (= 20 mol%) of trimellitic anhydride of the tribasic acid anhydride was used in Example 4 of the original specification.

Thus, since the water-soluble, flame retardant polyester resin of the amended claims possesses superior properties not expected from the teachings of the cited references, this rejection can no longer be sustained and should be withdrawn.

CONCLUSION

For the foregoing reasons, all of the claims now pending in the present application are believed to be clearly patentable over the outstanding rejections. Accordingly, favorable reconsideration of the claims in light of the above remarks is courteously solicited. If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

Dated: August 13, 2007

Respectfully submitted,

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